SpyWolf

Project Audit

Overview

This audit has been prepared for **The Tavern** to review the main aspects of the project to help investors make make an informative decision in the research process.

You will find a a summarized review of the following main key point::

- Contract's source code
- Project and team
- Website
- Social media & online presence

NOTE: We ONLY consider a project safe if they receive our "Certificate of Trust" NFT. This report only points out any potential red flags found in our analysis. Always do your own research before investing in a project.

Smart Contract Review

The contract review process pays special attention to the following:

- Testing the smart contracts against both common and uncommon vulnerabilities
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Ensuring contract logic meets the specifications and intentions of the client.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders.
- Thorough line-by-line manual review of the entire codebase by industry experts.

"The results of this audit are purely based on the team's evaluation and does not guarantee nor reflect the projects outcome and goal"
- SpyWolf Team

Smart Contract Summary (BREWERY)

Contract Name	BREW
Ticker	BREWERY
Contract	0xf5E723f0FD54f8c75f0Da8A8F9D68Bf67B20b850
Settings contract	0x8f90f0eb59950692ea6a87bea260908ed3a4a38f
Owner Address	0xf0D41ED017dB1eBA5f58E705681c2f312BfAc5AC
Network	AVALANCHE
Language	Solidity
Tax	**MEAD** claim: 10% - 20%
Supply	8,260 BREWERY (it increases over time)
Status	Launched

Current stats

MaxTiers	3
Tier 1, Tier 2, Tier 3	2 MEAD/day, 3 MEAD/day, 4 MEAD/day
fementationPeriod	1209600 secs (14 days) - no XP during this period
ExperiencePerSecond	1
maxBrewersPerWallet	20

Issues Checking Status	
Design Logic	**Passed ✓**
Compiler warnings.	**Passed ✓**
Private user data leaks	**Passed ✓**
Timestamp dependence	**Passed ✓**
Integer Overflow and Underflow	**Passed ✓**
Race conditions and Reentrancy. Cross-function race conditions	**Passed ✓**
Possible delays in data delivery	**Passed ✓**
Oracle calls	**Passed ✓**
Front running	**Passed ✓**
DoS with Revert	**Passed ✓**
DoS with block gas limit	**Passed ✓**
Methods execution permissions	**Passed ✓**
Economy model	**Passed ✓**
The impact of the exchange rate on the logic	**Passed ✓**
Malicious Event log	**Passed ✓**
Scoping and Declarations	**Passed ✓**
Uninitialized storage pointers	**Passed ✓**
Arithmetic accuracy	**Passed ✓**
Cross-function race conditions	**Passed ✓**
Safe Zeppelin module	**Passed ✓**
Fallback function security	**Passed ✓**

Admin Privileges (BREWERY)

Admin can change the settings contract

```solidity
function setSettings(address _settings) external onlyRole(DEFAULT_ADMIN_ROLE) {
    settings = TavernSettings(_settings);
}
```

Admin can change the tradability of the BREWERY NFTs

```solidity
function setTradingEnabled(bool _b) external onlyRole(DEFAULT_ADMIN_ROLE) {
    tradingEnabled = _b;
}
```

Admin can change the yield of each Tier

```solidity
function editTier(uint256 _tier, uint256 _xp, uint256 _yield) external onlyRole(DEFAULT_ADMIN_ROLE) {
    require(tiers.length >= _tier, "Tier doesnt exist");
    tiers[_tier] = _xp;
    yields[_tier] = _yield;
}
```

Admin can stop a BREWERY to produce MEAD

```solidity
function setEnableBrewery(uint256 _tokenId, bool _b) external onlyRole(DEFAULT_ADMIN_ROLE) {
    breweryStats[_tokenId].enabled = _b;
}
```

Admin can change Fermentation Period (currently 14 days)

```solidity
function setBaseFermentationPeriod(uint256 _baseFermentationPeriod) external onlyRole(DEFAULT_ADMIN_ROLE) {
    fermentationPeriod = _baseFermentationPeriod;
}
```

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Smart Contract Summary (MEAD)

Contract Name	MEAD
Ticker	Mead
Contract	0xD21CdCA47Fa45A0A51eec030E27AF390ab3aa489
LP Address	0x295f322e3cf883925ae8cc9346e4d2b19d7dcb0c
Owner Address	0xf0D41ED017dB1eBA5f58E705681c2f312BfAc5AC
Taverns Keep	Same as Owner
Network	AVALANCHE
Language	Solidity
Tax	sellTax: 25%
Total Supply	2,500,000 MEAD (it can increase - mint function)
Trading Enabled	Once enabled it cannot be disbaled

Issues Checking Status

Design Logic	**Passed ✓**
Compiler warnings.	**Passed ✓**
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Malicious Event log	**Passed ✓**
Scoping and Declarations	**Passed ✓**
Uninitialized storage pointers	**Passed ✓**
Arithmetic accuracy	**Passed ✓**
Cross-function race conditions	**Passed ✓**
Safe Zeppelin module	**Passed ✓**
Fallback function security	**Passed ✓**

Owner Privileges (MEAD)

Owner can disable an account from trading MEAD

```solidity
function setBlacklist(address _account, bool _value) external onlyOwner {
    blacklist[_account] = _value;
}
```

Owner can mint MEAD

```solidity
function mint(uint256 _amount) public onlyOwner {
    _mint(msg.sender, _amount);
}
```

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The Tavern Project Basics
& Team Review

The Tavern is a passive income protocol that improves upon current node projects, by combining gamification, NFTs and a treasury-backed token to reward participants sustainably over the long term.

The protocol allows users to purchase BREWERYs, which continually produce MEAD at a fixed rate - for life!

Full Offerings::

- Passive income

- NFTs

- Gamification elements

- The supply of BREWERYs is controlled

- You can purchase BREWERYs with LP tokens, at a discount depending on how much the liquidity supports the total market cap.
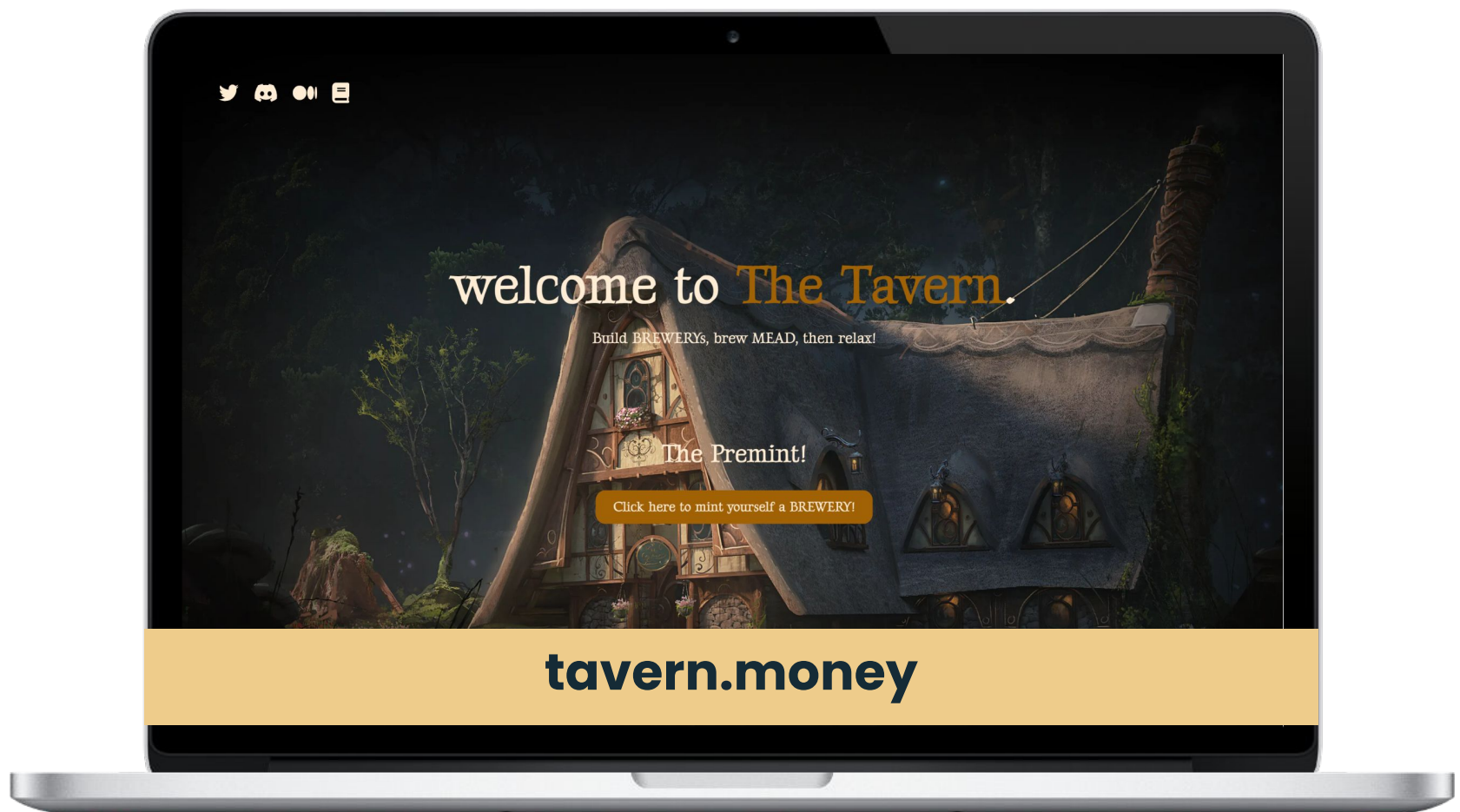
Team:

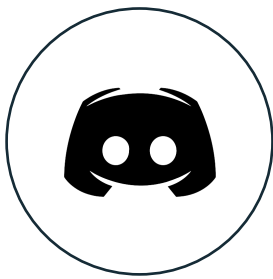- The team has been KYC'd by third party company solid proof https://github.com/solidproof/projects/blob/main/The%20Tavern/KYC_Certificate_The_Tavern.png

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Website Analysis

URL: https://tavern.money

- **Design:** Nice design that matches the theme very well..

- **Content:** Not enough info about what the project is about on the home page. No navigation or pages.

- **Whitepaper:** Well written and descriptive.

- **Roadmap:** Goals set for a short period.

- **Mobile-friendly?** Yes
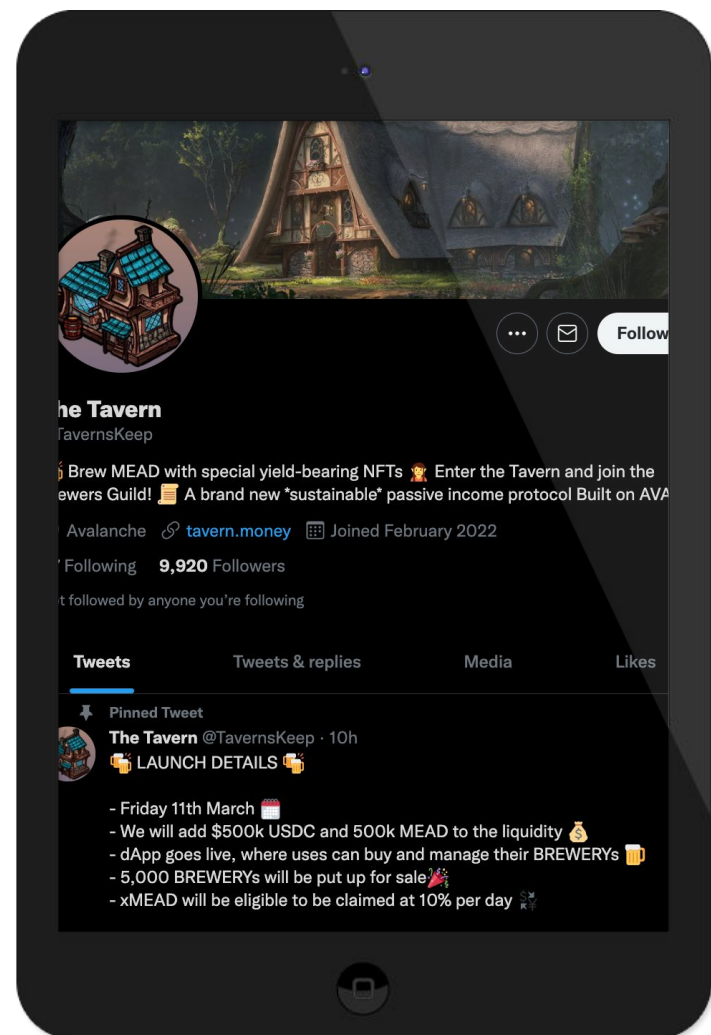
- **Technical:** SSL certificate present.

welcome to The Tavern.

Build BREWERYs, brew MEAD, then relax!

The Premint!

Click here to mint yourself a BREWERY!

tavern.money

Social Media & Online Presence

Discord

https://discord.gg/tavernskeep

- 9,074 members
- Very active community and devs

Twitter

https://twitter.com/tavernskeep

- 9,942 Followers
- Very active

![SpyWolf logo]

About SpyWolf

SpyWolf is a team of crypto security experts that have been performing full audits for projects for the past months in order to ensure safety on the crypto space. Our goal is to help eliminate monetary fraud through our auditing services and utility token, $SPY.

▶ Website: SpyWolf.co

▶ Portal: SpyWolf.network

▶ Telegram: @SpyWolfNework

▶ Twitter: Twitter.com/SpyWolfNetwork

(Sample Certificate NFT for those who pass audit)

If you are interested in finding out more about our audits and Certificate of Trust NFTs, reach out to contact@spywolf.co.

Disclaimer

This report shows findings based on our limited project analysis, following good industry practice from the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, overall social media and website presence and team transparency details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report.

While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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No applications were reviewed for security. No product code has been reviewed.